

South Coast Air Quality Management District

Statement of Basis

Proposed Initial Title V Permit

Facility Name:	Air Products and Chemicals, Inc.
Facility ID:	3417
SIC Code:	2813
Equipment Location:	23300 South Alameda Street Carson, California 90810
Application #:	401782
Application Submittal Date:	05/16/2002
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1. Introduction and Scope of Permit

Title V is a national operating permit program for air pollution sources. Facilities subject to Title V must obtain a Title V permit and comply with specific Title V procedures to modify the permit. This permit replaces the facility's other existing permits. Title V does not necessarily include any new requirements for reducing emissions. It does, however, include new permitting, noticing, recordkeeping, and reporting requirements.

The AQMD implements Title V through Regulation XXX – Title V Permits, adopted by the AQMD Governing Board in order to comply with EPA's requirement that local air permitting authorities develop a Title V program. Regulation XXX was developed with the participation of the public and affected facilities through a series of public workshops, working group meetings, public hearings and other meetings. AQMD also has published a Technical Guidance Document for Title V (March 2005, Version 4.0).

The Title V major source threshold for a particular pollutant depends on the attainment status of the pollutant in the South Coast Air Basin. The Basin is in attainment with federal standards for NO₂, SO₂, CO, and lead. The status for CO has been redesignated from nonattainment to attainment in June 2007 (72 FR 26718). The status for PM-10 is serious nonattainment. The status for ozone is currently extreme nonattainment.

A Title V permit is proposed to be issued to cover the operations of Air Products and Chemicals, Inc., located at 23300 South Alameda Street, Carson. This facility is referred to as the Air

Products Carson Plant. It is subject to Title V requirements because it is a major source for NO_x and VOC. Current federal regulations that include NSPS (New Source Performance Standards) and NESHAP (National Emission Standards for Hazardous Air Pollutants) are not applicable to the operations of this facility.

2. Facility Description

This is an existing facility that is in the business of hydrogen production. This facility operates one heater, one selective catalytic reduction (SCR), one aqueous ammonia storage tank, one flare, and other units directly involved in the core hydrogen production operations.

The facility operations can be basically characterized by four processes: removal of sulfur by hydrogenation and desulfurization; hydrogen production by steam-hydrocarbon reforming process; CO conversion by high temperature shift reaction; and hydrogen purification by pressure-swing adsorption (PSA). This facility uses only commercial-quality natural gas and steam, produced from treated water, to produce the desired product, hydrogen. Commercial-quality natural gas and PSA purge gas are burned in the heater (reformer) to provide the required heat for the process. The hydrogen product is delivered by pipeline and sold to local refineries, which will be governed under separate Title V permits. Air Products and Chemicals, Inc., owns and operates another hydrogen plant in Wilmington, which will be issued a separate Title V Permit.

3. Construction and Permitting History

The facility has been in continuous operation since late 1999. Numerous permits to construct and temporary permits to operate were issued to the facility for initial construction in September of 1998. An initial Title V permit has yet to be issued to the facility.

4. Regulatory Applicability Determinations

Applicable legal requirements for which this facility is required to comply are identified in the Title V permit (for example, Sections D, E, and H). Applicability determinations (i.e., determinations made by the District with respect to what legal requirements apply to a specific piece of equipment, process, or operation) can be found in the Engineering Evaluations associated with the non-Title V permits the AQMD issued for this facility in the past. These evaluation reports are located at the AQMD office. Also, this facility is not subject to any NSPS or NESHAP requirements.

5. Monitoring and Operational Requirements

Applicable monitoring and operational requirements for which the facility is required to comply are identified in the Title V permit (for example, Sections D, F, and J and Appendix B). Discussion of any applicable monitoring and operational requirements can be found in the Engineering Evaluations. Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64 do not apply to any of the permitted emission sources at this facility.

6. Permit Features

Permit Shield

A permit shield is an optional part of a Title V permit that gives the facility an explicit protection from requirements that do not apply to the facility. A permit shield is a provision in a permit that states that compliance with the conditions of the permit shall be deemed compliance with all identified regulatory requirements. To incorporate a permit shield into the Title V permit involves submission of applications for change of conditions for each equipment affected by the permit shield. Permit shields are addressed in Rule 3004 (c). This facility has not applied for a permit shield for any of its equipment.

Alternate Operating Scenarios

An alternative operating scenario (AOS) is a set of provisions and conditions in a permit that allows the operator to switch back and forth between alternative modes of operation without submitting an application for a permit revision before each switch. However, each AOS must be evaluated for compliance with AQMD rules and regulations and applicable State and Federal requirements. AOS is addressed in Rule 3005 (j). This facility has not applied for an AOS for any of its equipment.

Streamlining Requirements

Some emission units may be subject to multiple requirements which are closely related or redundant. The conditions may be streamlined to simplify the permit conditions and compliance. Emission limits, work practice standards, and monitoring, recordkeeping, and reporting requirements may be streamlined. Compliance with a streamlined condition will be deemed compliance with the underlying requirements whether or not the emission unit is actually in compliance with the specific underlying requirement. This facility has not applied for any streamlined condition.

7. Summary of Emissions

Criteria Pollutant Emissions (tons/year)
Annual Reported Emissions for Reporting Fiscal Year 2006

Pollutant	Emissions (tons/year)
NO _x	8.2
CO	2.4
VOC	7.9
PM	2.8
SO _x	0.2

**Toxic Air Contaminants Emissions (TAC)
Annual Reported Emissions for Reporting Year 2006**

The Following TACs Were Reported	Emissions (lbs/yr)
Ammonia	1978
Benzene	24
Formaldehyde	89
Naphthalene	3.5
Polynuclear aromatic hydrocarbons (PAHs)	1.1

Source: AQMD "Facility Information Detail" (FIND) database, available at http://www.aqmd.gov/webappl/fim/prog/emission.aspx?fac_id=3417, May 9, 2008.

Health Risk from Toxic Air Contaminants

The facility is not subject to review by the Air Toxics Information and Assessment Act (AB2588).

8. Compliance History

As noted, the facility has been in constant operation since late 1999. The facility has been subject to both self-reporting requirements and AQMD inspections. The facility has had no citizen complaints filed, one (1) Notice to Comply issued, and no Notice of Violation issued in the last three years. The facility is currently in compliance with all notices. Further information regarding the facility's compliance status is available on the internet under the AQMD's "Facility Information Detail" database (FIND, at <http://www.aqmd.gov/webappl/fim/prog/search.aspx>).

9. Compliance Certification

By virtue of the Title V permit application and issuance of this permit, the reporting frequency for compliance certification for the facility shall be annual.